TARANUKHA, M. D.

Chemical control of noxious insects. M. D. Taranukha. *Visnik Akad. Nauk Ukr. R.S.R.* 27, No. 7, 64-71 (1956).—Results with DDT differ with temp.: If the temp. is not lower than 17°, a 20% suspension of DDT must be used at the rate of 100–120 l./ha. and a 20% dust must be used at the rate of 25–30 kg./ha. For hibernating insects, a 25% suspension must be used at the rate of 125–40 l./ha. To kill larvae, a 20% suspension must be used at the rate of 100–25 l./ha. Werner Jacobson

TARANUKHA, M. D., kand. biolog. nauk

Spraying in controlling the shield bug Eurygaster intergriceps.
Zashch. rast. ot vred. i bol. 5 no.5:32-33 My '60.
(MIRA 16:1)

(Ukraine--Eurygasters--Extermination)
(Ukraine--Spraying and dusting in agriculture)

TARANUKHA, M.D.

Dynamics of the abundance of Eurygaster integriceps as related to its feeding on different varieties of winter wheat and the resistance of these varieties to the pest. Vop. ekol. 7:177-178 '62.
(MIRA 16:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut zashchity rasteniy, Kiyev.
(Ukraine--Wheat--Disease and pest resistance)
(Ukraine--Eurygasters)

L 17022-63 EWT(1)/EPF(c)/EWT(m)/ S/185/63/008/004/007/015
BDS/ES(j) AFFTC/ASD Pr-4 GG/RM/WW/AR/JFW/K

AUTHOR: Shul'ha, S. Z., Telyatnyk, A. I., Taranukha, O. M., and Sydoryk, Ye. P.

TITLE: EPR Spectra of certain γ-irradiated amino acids over a wide temperature range

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 4, April 1963, 460-468

TEXT: The authors study the EPR spectra of a great number of amino acids irradiated by a cobalt γ - source. These studies are important because of the character of the radiation damage to solids, of the superfine interaction of an unpaired electron with paramagnetic nuclei in free radicals, of the properties of molecular orbits of an unpaired electron, etc. The study of radiation defects in amino acids can also be the basis for the study of radiation damages in biological objects since amino acids are the building blocks of protein molecules. Assumptions are made regarding the structure of the free radicals arising in certain of the substances studied. The spectrum of the irradiated DL-norleicin differs from that obtained by some other authors, who used X-ray tubes for irradiation. The relationship of the spectra to temperature was studied over a

Card 1/2

L 17022-63
EPR Spectra of certain....

S/185/63/008/004/007/015

2

range extending from room temperature to that of liquid nitrogen (77°K) and liquid hydrogen (20.4°K). The authors observed expansion of the components of superfine structure; this effect is explained by freezing of the rotary motions of the radicals resulting in averaging of the dipole-dipole interaction. In some instances a slight variation was noted in the magnitude of superfine splitting; and in some cases improvement in the symmetry of the superfine structure picture during cooling was observed. An attempt was made to explain this phenomenon. The authors also studied the change in EPR spectra due to recombination of free radicals which results from heating samples at 100°C.

ASSOCIATION: Institut fizyki AN URSR (Institute of Physics of the Ukrainian Academy of Sciences, Kiev)

SUBMITTED: September 12, 1962

Card 2/2

L 36664-65 EWT(1)/EEC(t)/EEC(b)-2 Pi-4 IJP(c)
ACCESSION NR: AP5007384 S/0286/65/000/004/0040/0040

AUTHOR: Lebedev, Ya. S.; Taranukha, O. M.

TITLE: Transducer for spectrometers of electron paramagnetic resonance. Class 21, No. 168347

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 40

TOPIC TAGS: spectrometer transducer, electron paramagnetic resonance, EPR spectrometer

ABSTRACT: This Author Certificate introduces a transducer for a spectrometer of electron paramagnetic resonance. The transducer consists of a cavity resonator and an ampul containing the specimen. To localize the shf field within the specimen, a spiral made of a conductive substance is wound around the ampul. Orig. art. has: 1 figure. [DW]

ASSOCIATION: none

SUBMITTED: 18Mar64 ENCL: 00 SUB CODE: EC,NP

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3221

Card 1/1

LEBEDEV, Ya.S.; TARANUKHA, O.M.

Use of moderating packings in the recording of electron paramagnetic resonance spectra. Teoret. i eksper. khim. 1 no.2:260-264 Mr-Ap '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

TARANUKHA, Yu.K.

Geothermal features of the Mesozoic and Cenozoic sediments of the Kuban-Black Sea oil- and gas-bearing region. Izv. vys. ucheb. zav.; neft' i gaz 4 no.11:3-9 '61. (MIRA 17:2)

1. Groznenskiy neftyanoy institut.

SUKHAREV, G.M.; TARANUKHA, Yu.K.; VLASOVA, S.P.

Geothermal characteristics of oil and gas fields in the Caucasus.
Sov.geol. 5 no.12:70-79 D '62. (MIRA 16:2)

1. Groznenskiy neftyanoy institut.
(Caucasus—Petroleum geology)
(Caucasus—Gas, Natural—Geology)

SUKHAREV, G.M.; TARANUKHA, Yu.K.

Geothermal characteristics of a cross section of Tertiary sediments. Izv.vys.ucheb.zav.; neft' i gaz 5 no.4:3-8 '62. (MIRA 16:1)

1. Groznenskiy neftyanoy institut.
(Azerbaijan—Earth temperature)

SUKHAREV, Grigoriy Mikhaylovich; MIROSHNIKOV, Mikhail Vasil'yevich
Prinimal uchastiye TARANUKHA, Yu.K.; BEKMAN, Yu.K., vedushchiy red.; STAROSTINA, L.D., tekhn. red.

[Underground waters of the oil and gas fields in the Caucasus] Podzemnye vody neftianykh i gazovykh mestorozhdenii Kavkaza. Moskva, Gostoptekhizdat, 1963. 327 p. (MIRA 16:6)
(Caucasus--Petroleum geology)
(Caucasus--Gas,Natural--Geology)
(Caucasus--Water, Underground)

TARANUKHA, Yu.K.; NIKANOROV, A.M.

Principals of paleogeothermal investigations. Izv. vys. ucheb. zav.; neft' i gaz 6 no.7:3-4 '63. (MIRA 17:8)

1. Groznenskiy neftyanoy institut.

NIKANOROV, A.M.; TARANUKHA, Yu.K.

Hydrochemical types and factors influencing the formation of the chemical composition of the waters of the Khvalynian sediments in eastern Ciscaucasia. Izv. vys. uchab. zav.; neft' i gaz 6 no.10: 3-5 '63. (MIRA 17:3)

1. Groznenskiy neftyanoy institut.

VLASOVA, S.P.; SUKHAREV, G.M.; TARANUKHA, Yu.K.

Geothermal characteristics of Mesozoic and Cenozoic sediments in eastern Ciscaucasia. Izv. vys. ucheb. zav.; geol. i razv. 7 no.2:3-12 F'64. (MIRA 17:2)

1. Groznenskiy neftyanoy institut.

VLASOVA, S.P.; TAR[illegible], Yu.E.

Temperature conditions of the [illegible] Caucasus and Ciscaucasia. Sev. otd. Geol. inv.; sbornik 1 (vol 7 no.7:9-12 '64. MIRA 17:9)

1. Groznenskiy neftyanoy institut.

TARANUKHA, Yu.K.; KIRALOV, A.M.

Some problems concerning the hydrochemistry of the underground waters of the Mesocenozoic sediments of eastern Ciscaucasia. Izv. vys. ucheb. zav.; neft' i gaz 7 no.8:30, 38 '64. (MIRA 17:10)

1. Groznenskiy neftyanoy institut.

SUKHAREV, G.M.; VLASOVA, S.P.; TARAMUKHA, Yu.K.

Some new data on the geothermal characteristics and thermophysical properties of rocks of the Pre-Cambrian-Paleozoic and Meso-Cenozoic sediments in the Greater Caucasus and Ciscaucasia. Dokl. AN SSSR 161 no.1:203-204 Mr '65.

(MIRA 18:3)

1. Groznenskiy neftyanoy institut. Submitted August 13, 1964.

SUKHAREV, G.M.; TARANUKHA, Yu.K.

New data on Paleozoic and Pre-Cambrian underground waters in the Caucasus. Geol. nefti i gaza 9 no.4:54-57 Ap '65. (MIRA 18:8)

1. Groznenskiy neftyanoy institut.

SUKHAREV, G.M.; TARANUKHA, Yu.K.

Paleozoic and Pre-Cambrian waters in the Caucasus. Sov.geol. 8 no.2:100-111 F '65. (MIRA 18:12)

1. Groznenskiy neftyanoy institut.

ACC NR: AP7001895 (N) SOURCE CODE: UR/0020/66/171/004/0851/0853

AUTHOR: Sukharev, G. M.; Vlasova, S. P.; Taranukha, Yu. K.

ORG: Groznyy Petroleum Institute (Groznenskiy neftyanoy institut)

TITLE: Thermophysical properties of rocks and values of thermal fluxes in certain regions of the High Caucasus and Ciscaucasia

SOURCE: AN SSSR. Doklady, v. 171, no. 4, 1966, 851-853

TOPIC TAGS: thermophysical property, thermal flux, geologic exploration, petrology

ABSTRACT: In 1962--1964 the authors determined the thermal parameters of several hundred specimens of magmatic, metamorphic, and sedimentary rocks under dry-air and moisture conditions in the temperature range from 15--20 to 90--100C. Determination of the thermal properties of rocks and temperature measurements in long-idle boreholes where these tests were made permit calculation of thermal flux densities coming from the depths of the earth. The results from the following boreholes are especially valuable in this connection: Karmadon No. 10 (in the valley of the Genaldon River 7 km north of Kazbek), Tamisk No. 1 (at the Tamisk spa in the Ardon River valley on the northern monocline of the Caucasus mountain structure), Metallurg No. 2 (in the southern outskirts of Ordzhonikidze), Baksan No. 1 (in the deep Kabardian Depression), Zmeyskaya No. 1 (at the west end of the Sunzhenskiy anticlinorium), Oktyabr'skaya No. 50/25 (on the southern outskirts of Groznyy), Veselovskaya No. 10 (in the

Card 1/2 UDC: 550.36(478)

ACC NR: AP7001895

North-Nagutsko-Veselovskiy brachianticlinal elevation), Zhuravskaya No. 4 (in the zone of juncture of the Tersko-Kumskiy depression with the Stavropol' vault), Petrovskaya No. 1 (in the vault zone of the Petrovsko-Blagodarnenskiy brachyanticlinal elevation of the West-Stavropol' depression), and Aleksandriyskaya No. 1 (in the southwestern part of the Tersko-Kumskiy depression). Average value of thermal fluxes from the depths of the earth were found within the wide limits of $1.62 \cdot 10^{-2}$ to $14.15 \cdot 10^{-2}$ W/m^2. These fluctuations are quite regular and stem from such factors as the geological structure, hydrogeological factors, and manifestation of new tectonic movements. Paper presented by Academician D. I. Shcherbakov 17 Feb 1966.

SUB CODE: 08/ SUBM DATE: 10Feb66

Card 2/2

PESOTSKIY, V.S., inzh.; TARANUKHIN, N.A., inzh.

Analyzing the cost of transporting raw materials. TSement 30 no.4: 14 Jl-Ag '64. (MIRA 17:11)

1. Vsesoyuznoye gosudarstvennoye spetsial'noye byuro po provedeniyu pusko-naladochnykh i proyektno-konstruktorskikh rabot v tsementnoy promyshlennosti Gosstroya SSSR.

NIKITIN, Yu.P.; TARANUKHINA, L.V.; SEREDINA, L.R.; PUSHKAREVA, S.A.; POPOVA, I.A.; VERSHININA, N.V.

Activity of oxides in liquid aluminum silicates. Izv.vys.ucheb. zav.; tsvet.met. 5 no.1:74-76 '62. (MIRA 15:2)

1. Ural'skiy politekhnicheskiy institut, kafedra tekhnologii silikatov. (Aluminum silicates) (Activity coefficients)

TARANUKHINA, Z.

N - Hospital in Mechinkova Inst., Moscow, (1944-)

"Examination of a wound microflora and its dynamics in cytograms of the wound exudation,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 9, 1944.

NESMEYOVA, V.V.; TARANUKHINA, Z.V., kandidat meditsinskikh nauk (Moskva)

Malarial hemoglobinuria. Klin.med.33 no.7:69-74 Jl '55. (MLRA 8:12)
(HEMOGLOBIN,
etiology and pathogenesis, malaria)
(MALARIA, complications
hemoglobinuria)

KASSIRSKIY, I.A., prof.; NESMELOVA, V.V.; TARANUKHINA, Z.V.; SADOVNIKOVA, Ye.I.

Current and controversial problems in the treatment and diagnosis of acute leukoses. Probl.gemat.i perel.krovi 1 no.1:16-23 Ja-F '56. (MIRA 14:1)

1. Iz 3-y terapevticheskoy kafedry (zav. - prof. I.A. Kassirskiy) TSentral'nogo instituta usovershenstvovaniya vrachey.
(LEUKEMIA)

TARANUSHCHENKO, O.S., inzh.

Author's supervision and the technical assistance of designers at large construction projects. Prom. stroi. 43 no. 11:6-7 '65. (MIRA 18:12)

1. Pridneprovskiy Gosudarstvennyy proyektnyy institut po obshchestroitel'nomu i sanitarno-tekhnicheskomu proyektirovaniyu promyshlennykh predpriyatiy Gosstroya SSSR.

ACCESSION NR: AP4042635 S/0173/64/017/003/0019/0024

AUTHOR: Taranyan, I. G.

TITLE: The study of heat transfer and aerodynamic drag of a finned rolled bundle of aluminum tubes

SOURCE: AN ArmSSR. Izv. Seriya tekhnicheskikh nauk, v. 17, no. 3, 1964, 19-24

TOPIC TAGS: heat transfer, aerodynamic drag, Nusselt number, Reynolds number, heat exchanger / ETAM 3A electrothermoanemometer

ABSTRACT: The results of investigations of heat transfer and aerodynamic drag on a bundle of aluminum tubes were obtained. The tubes were rolled, staggered bundles of 25 aluminum tubes each. The finned tubes had 8-mm internal diameters and 12-mm external diameters, 27.5-mm fin diameter with 0.5-mm fin thickness and 7.75-mm fin height. The experiments were performed in an open jet wind tunnel with an exhaust fan. The tubes were placed transverse to the air flow and heated water was circulated through them. Air temperature was measured by means of resistant thermometers to within 0.1C, and the speed of the incoming air stream was determined by means of an electrothermoanemometer type ETAM-3A (VEI system). The heat transfer analysis was carried out using nondimensional similarity

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ACCESSION NR: AP4042635

criteria represented by $Nu = A_1 \cdot Re^a$, with the assumption Pr(air) = 0.7.

The coefficient A_1 and the index "a" were determined experimentally to be 0.51 and 0.67 respectively. All transport coefficients were obtained using mean temperature values. The aerodynamic drag was determined using Euler's criteria per tube bundle, or $\frac{Eu}{m} = C \cdot Re^n$. C and m were then determined from the experimental data to be 1.12 and -0.2 respectively. It is shown that the Reynolds number index is a direct function of fin effectiveness. Orig. art. has: 11 formulae and 3 figures.

ASSOCIATION: AFVNIIEM

SUBMITTED: 18Jun63 ENCL: 00

SUB CODE: ME,TD NO REF SOV: 006 OTHER: 000

Card 2/2

L 29107-65 EWT(d)/FS(m)/EWT(1)/EWP(m)/EWG(v)/T-2/FCS(k) Pd-1/Pe-5

S/0173/64/017/006/0033/0040 34 33 B

ACCESSION NR: AP5003986

AUTHOR: Taranyan, I. G.

TITLE: Study of the heat transfer and aerodynamic resistance of transverse streamlined circular sectioned fins

SOURCE: AN ArmSSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 17, no. 6, 1964, 33-40

TOPIC TAGS: heat transfer, aerodynamic resistance, Nusselt number, Prandtl number, Reynolds number

ABSTRACT: The results of investigating the heat transfer and aerodynamic resistance of streamlined fins with circular cross sections are reported. These studies were conducted in the laboratories of the Armenian branch of the VNIIEM. Each fin was rolled in one piece and 2-8 grooves were milled on it. A typical finned tube had the following dimensions: internal diameter of the base tube d_1 was 8 mm, external diameter d was 12 mm, diameter including the fin D was 27.5 mm, mean width of the fin δ was 0.5 mm, height of the fin h was 7.75 mm, spacing between the fin vertices t was 3 mm, and the fin coefficient Φ was 9.5. The heat transfer test was conducted by sending water through the tube at a temperature of 90-98C, and cooling

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L 29107-65

ACCESSION NR: AP5003986

the outside of the tube by air. The experimental method followed the one described in the work of I. G. Taranyan (Izvestiya AN Armyanskoy SSR, sernya tekhnicheskikh nauk, No. 3, 1964). From the experimental data the following relations were obtained between the Nusselt number Nu, Prandtl number Pr, Reynolds number Re, depth ratio l/d, and the relative arc length between the grooves s/d:

$$3\cdot10^3 \leqslant Re \leqslant 20\cdot10^3,\ 0.166 \leqslant \frac{l}{d} < 0{,}33 \text{ и } 0{,}733 < \frac{s}{d} \leqslant 3{,}14$$

$$Nu = 0{,}119\, Re^{0.65}\, (l/d)^{0.12} \left(\frac{s}{d}\right)^{0.18} Pr^{0.4};$$

$$3\cdot10^3 < Re \leqslant 20\cdot10^3,\ 0{,}333 < l/d \leqslant 0{,}65 \text{ и } 0{,}733 \leqslant \frac{s}{d} < 3{,}44,$$

$$Nu = 0{,}135\, Re^{0.65} (l/d)^{0.12} (s/d)^{-0.13} Pr^{0.4};$$

$$20\cdot10^3 \leqslant Re \leqslant 6{,}5\cdot10^3,\ 0{,}166 < l/d < 0{,}5 \text{ и } 0{,}733 \leqslant \frac{s}{d} < 3{,}44,$$

$$Nu = 0{,}256\, Re^{0.58}\, (l/d)^{0.17}\, (s/d)^{0.144}\, Pr^{0.4};$$

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ACCESSION NR: AP5003986

$$2)\cdot 10^3 \leq Re \leq 6{,}5\cdot 10^5,\ 0{,}5 < l/d < 0{,}55 \text{ и } 0{,}633 \leq \frac{s}{d} \leq 3{,}44$$

$$Nu = 0{,}268\ Re^{0.55}\cdot (l/d)^{0.24}\cdot (s/d)^{0.54}\ Pr^{0.4}$$

Orig. art. has: 10 formulas and 5 figures.

ASSOCIATION: Armyanskiy filial VNIIEM (Armenian branch of VNIIEM)

SUBMITTED: 15Jun64 ENCL: 00 SUB CODE: TD

NO REF SOV: 003 OTHER: 000

Card 3/3

TARAKHOVA, G. P., SHEVLEV, T. M., and CHECHULINSKIY, D. E.

"Determining the Time of Existence of the Artificial Earth Satellite and Studying Secular Perturbations of its Orbit," a paper presented at the 8th International Astronautical Congress, 6-12 Oct. 1957, Barcelona.

USSR/Zooparasitology. Ticks and Insects - Vectors of G
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104117

Author : Netskiy, G. I.; Taranyuk, G. S., Chudinov, P. I.

Inst : Omsk Scientific Research Institute of Epidemiology, Microbiology and Hygiene.

Title : Comparative Data on the Census and Its Seasonal Dynamics in the Ticks Dermacentor pictus Herm. and Dermacentor marginatus Sulz. on Virgin and Seeded Pastures under Conditions of the Southern Wooded-Steppe Area of Omskaya Oblast.

Orig Pub: Tr. omskogo n.-i. in-ta epidemiol., mikrobiol. i gigiyeny, 1957, No 4, 7-14

Abstract: The cultivation of virgin soils and the spread of cultivated pastures exert a great influence on the state of tick foci. Observations were

Card 1/2

USSR/Zooparasitology. Ticks and Insects - Vectors of G
Causal Organisms. Ticks.

Abs Jour: Ref. Zhur. - Biol., No 23, 1958, 104117

made in the environs of Omsk with the aim of studying the characteristics of distribution of D. pictus and D. marginatus in the region of occurrence of seeded pastures. Weekly examinations were made of 20 control cows, of which 10 grazed on the virgin pasture and 10 on the seeded one, and ticks were collected on gauze scrapers along the border of birchasp lumber areas. It was shown that the occurrence of seeded pastures exerts a different influence on populationsof studied ticks: the proportion of D. marginatus increases, because the census of D. pictus decreases more sharply and is recovered more slowly. - L. V. Babenko

Card 2/2

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TARANUK, I. .

32658. Opyt vydeleniya kul'tur [illegible] stornik navel. Palot orskoye navel. - Izvest. vet. In-ta, vyp. 9, 1948, s. [illegible]. - Bibliogr: 21 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

TARANYUK, P. S.

"Administration of the Allergen Blastomycin in the Diagnosis and Treatment of Epizootic Lymphangitis of Horses," P.S.Taranyuk, Cand. Vet. Sci., Irkutsk Sci.-Iec. Vet Exper. Station. Veterinariya Vol 30, No 5, pp 12-16, May 53.

No specific remedy has yet been discovered for the treatment of epizootic lymphangitis in horses. The fact that horses which have recuperated from epizootic lymphangitis acquire immunity that lasts a long time testifies that an immunogenic process takes place during which antibodies are formed. Since the causative organism can be grown on an artificial medium, an allergen could be prepared to aid in the early diagnosis of the disease. The use of this allergen, named blastomycin, seems feasible in cases when the clinical symptoms are not clear or are nontypical. Blastomycin, a dark-yellow transparent liquid, is administered subcutaneously. It has proven to possess a high degree of specificity and induces no marked allergic reaction in healthy horses.

251T167

TARANYUK, V.A., inzh.

Apparatus for soldering a manganin wire using a silver solder.
Energetik 14 no.1:29-30 Ja '66. (MIRA 19:1)

FD-3309

USSR/Medicine - Bacteriology

Card 1/1 : Pub. 148-5/24

Author : Zhitova, Ye. I., Ivanova, N. A., and Taranyuk, Z. Ye.

Title : The regeneration of filterable forms of bacteria on various nutrient media

Periodical : Zhur. mikro. epid. i immun. 10, 32-36, Oct 1955

Abstract : The observation of filterable forms of bacteria is possible without the use of "feeders" if the material being investigated is cultured on nutrient media rich in natural protein and containing a specific vitamin composition (A Dorset egg medium, serum bouillon, or Martin's bouillon with liver extract and yeast autolysate). Various conditions are required for the regeneration of the filterable forms of different species of bacteria. Filterable forms generated in aerated cultures have a greater chance of developing into cellular forms than those obtained from phagolysates of cultures. No references cited.

Institution : Gor'kiy Institute of Vaccines and Sera (Director - A. A. Golubev)

Submitted : January 14, 1955

ZHITOVA, I.Ye.,; IVANOVA, N.A.,; TARANYUK, Z.Ye.

Regeneration of filtrable forms of enteric bacteria by using "feeder" bacteria. Zhur. mikrobiol., epid. i immun. 27 no.1:5-8 Ja '56 (MLRA 9:5)

1. Iz Gor'kovskogo instituta vaktsin i syvorotok (dir.A.A. Golubev)

(CULTURE MEDIA,
for enteric filtrable bact. regen. (Rus))
(BACTERIA,
enteric filtrable, culture media for determ. of regen. (Rus))

TARANYUK, Z. Ye. Cand Med Sci -- (diss) "Production of Cholera vaccine by the depth method." Gor'kiy, 1959. 12 pp (Gor'kiy State Med Inst im S. M. Kirov), 250 copies (KL, 46-59, 140)

ALEYNIK, M.D.; TARANYUK, Z.Ye.

Heterohemagglutination reaction with chicken erythrocytes as a method for the laboratory diagnosis of Botkin's disease. Vop. virus. 5 no. 1:83-87 Ja-F '60. (MIRA 14:4)

1. Gor'kovskiy institut epidemiologii i gigiyeny.
(HEPATITIS, INFECTIOUS) (BLOOD—AGGLUTINATION)

ALEYNIK, M.D.; TARANYUK, Z.Ye.; NASONOVA, A.S.; NIKOLAYEVSKAYA, G.V.; ZOTOVA, A.G.

Study of the effectiveness of prophylaxis of Botkin's disease using gamma globulin in childrens' institutions in Gorkiy and Dzerzhinsk. Vop.virus. 7 no.5:617-618 S-O '62. (MIRA 15:11)

1. Gor'kovskiy institut epidemiologii i mikrobiologii, Gor'kovskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya i Sanitarno-epidemiologicheskaya stantsiya avtozavodskogo rayona, Gor'kiy.
(GAMMA GLOBULIN)
(GORKIY—HEPATITIS, INFECTIOUS)
(DZERZHINSK (GORKIY PROVINCE)—HEPATITIS, INFECTIOUS)

TARAPANI, J.

"Some Remarks Concerning The Packaging Of Paper" p. 45. (Przeglad Papierniczy, Vol. 9, no. 2, Feb. 1953, Lodz)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, Feb. 1954

TARAPANI, J.

Schiller and paper. p. 371. PRZEGLAD PAPIERNICZY. Lodz. Vol. 11, no. 12, Dec. 1955

Source: East European Accessions List, (EEAL), Lc, Vol. 5, No. 3, March 1956

TARAPANI, J.

Calculating the production of paper by area. (To be continued) p. 52.
(PRZEGLAD PAPIERNICZY. Vol. 12, no. 2, Feb. 1956, Lodz, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957. Uncl.

AGARKOV, F.; MAKSIMOVICH, V.; NAMYATYY, A.; PEVNYY, S.; TARAPATA, N.

Materials for the establishment of time norms for rest periods of miners in the coal mines of the Donets Basin. Biul. nauch. inform.: trud i zar. plata 5 no.2:36-43 '62. (MIRA 15:2)
(Donets Basin—Coal mines and mining)(Rest periods)

TARAPATOV, Lev

TARAPATOV, [redacted] inzhener; USTYUGOV, P.G., redaktor; TYURYAYEV, M.A., tekhnicheskiy redaktor.

[Experience of the Kirghiz Petroleum Trust with directionally drilled wells] Opyt naklonno-napravlennogo bureniia skvazhin v "Kirgiznefti." Frunze, Kirgizskoe gos.izd-vo, 1957. 31 p. (MIRA 10:11)

1. Kontora bureniya No.1 "Kirgiznefti" (for Tarapatov).
(Oil well drilling)

LAPITSKIY, V.I., doktor tekhn.nauk, prof.; STUPAR', N.I., dotsent;
STUPEL', S.I., inzh.; TARAPAY, M.A., inzh.; TIMOFEYEV, V.L., inzh.;
YAKOVLEV, Yu.N., inzh.

Certain problems in the preparation of steel ingots for wheels.
Izv. vys. ucheb. zav.; chern.met. no.5:21-28 My '58. (MIRA 11:7)

1.Dnepropetrovskiy metallurgicheskiy institut i zavod im. K.
Libknekhta.
(Steel ingots)

S/148/60/000/010/001/018
A161/A030

AUTHORS: Druzhinin, V.P.; Iodko, V.A.; Kitayev, A.T.; Kruman, L.I.; Taropay, M.A.; Chovela, L.A.; Yankelevich, Ya.P.

TITLE: Investigation of the Thermal Behaviour of Intermediate Ladles

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, No. 10, pp. 58 - 66

TEXT: The investigation had been carried out to determine the heat losses from metal in intermediate ladles. Small ladle at the New-Tula Metallurgical Plant and large at the imeni Dzerzhinskiy Plant were studied. The small ladles were heated with blast furnace gas burning in an oxygen jet, and the large with coke gas; chromel-alumel and platinumrhodium-platinum thermocouples were inserted into the ladle linings as shown in Fig. 1 and 2; the metal temperature in ladles was measured with platinumrhodium-platinum and tungsten-molybdenum immersion thermocouples; indicating and recording galvanometers and an -09 (EPP-09) writing potentiometer were used. The duration of teeming was 20 - 26 min at the New Tula Plant (NTMZ) and 80 - 120 min at the imeni Dzerzhinskiy Plant. A graph gives the measurements results in a large ladle (Fig. 3) - there is practically no

Card 1/3

S/[illegible]/60/000/010/00[illegible]/013
A161/A030

Investigation of the Thermal Behaviour of Intermediate Ladles

heat gradient inside the intermediate ladle, apparently due to a feed of fresh hot metal from the main ladle. The lining temperature on the surface quickly reached the metal temperature; it dropped nearly 180°C during 5 min after the gas heating was stopped before teeming. E.A. Iodko and L.I. Krupman calculated the heating of lining to determine the effect of separate factors. The "working" layer of lining was stated to be 20 - 30 mm in small ladles, and 40 - 60 mm in large, which is less or equal to the usual fireclay lining depth and shows that additional heat insulation of the ladle casings is superfluous. The calculation is included in the article. The formula (13) determines the effect of the heat conductivity of the ladle lining on the drop in metal temperature in the ladle and shows that the relation is in direct proportion. The heat loss by radiation had not been considered. It was concluded that the heat conductivity in fireclay brick layers nearest to the contact surface with metal drops in the teeming process and the first metal portions in the intermediate ladle are cooled by the lining surface, whilst the heat gradient inside the lining has practically no influence. It is therefore proper to heat the lining at a high temperature on the surface ignoring high temperature gradients in the lining below the surface, and not to stop heating the ladle before the start of teeming. Cooling of the first metal

Card 2/3

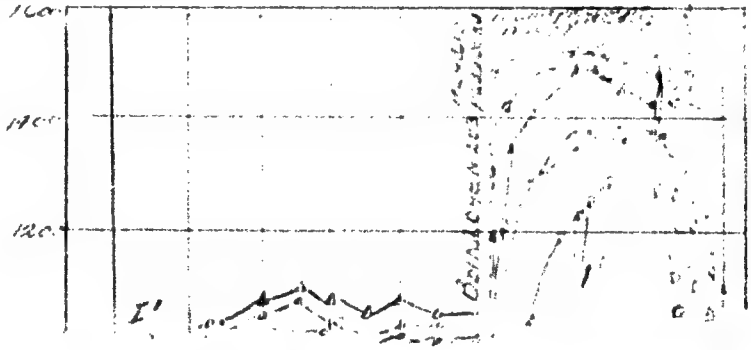
S/[illegible]/000/010/[illegible]
A161/A070

Investigation of Thermal Behaviour of Intermediate Ladles

portions can be decreased by faster filling. Brick with low heat conductivity on the surface must be used. The following participated in the investigation: Ye.I. Isayev, Yu.V. Yakovlev; V.M. Klimov; S.P. Yefimov; G.L. Voronin; S.L. Belogub; M.A. Pokhlin; F.I. Krasinskiy. V.I. Danilskiy was in charge. There are 6 figures, 2 tables and 4 Soviet references.

ASSOCIATION: Novo-Tul'skiy metallurgicheskiy zavod (New Tula Metallurgic Plant), Zavod imeni Dzerzhinskogo (imeni Dzerzhinskiy Plant), and Dneprpetrovskiy metallurgicheskiy institut (Dneprpetrovsk Metallurgical Institute)

SUBMITTED: April 21, 1960



Card 3/3

ISAYEV, Ye.I.; KUSHNAREV, I.T.; TARAPAY, M.A.; YAKOVLEV, Yu.N.; LAPITSKIY, V.I., prof., doktor tekhn.nauk, nauchnyy rukovoditel' raboty

Developing an efficient type of nozzle and stopper for the continuous casting of steel. Izv.vys.ucheb.zav.; chern.met. 6 no.1:42-49 '63. (MIRA 16:2)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Continuous casting--Equipment and supplies)

LAPITSKIY, V.I.; TARAPAY, M.A.; OKHOTSKIY, V.B.; LAYKO, B.G.; FIRER, L.M.
Prinimali uchastiye: SESYUK,G.S. [deceased]; KUSHNAREV, I.T.;
PATLAN', Ye.F.; PITOSHNICHENKO, G.P.; SOSEDKO, P.M.

Ways of reducing wheel discards because of angular segregation.
Izv. vys. ucheb. zav.; chern. met. 7 no.7:84-89 '64
(MIRA 17:8)

1. Dneprodetrovskiy metallurgicheskiy institut i Zavod im.
K. Libknekhta.

TARAPCIK, J.

The Hricov-Miksova-Povazska Bystrica Water Works system. p.322.

STAVBA. (Povereníctvo stavebníctva) Bratislava, Czechoslovakia, Vol. 6, no. 11, Nov. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 1, Jan, 1960

Uncl.

ZSIGMOND, Istvan (Vecses, Voroshadsereg utja 190); TARAPCSIK, Janos (Monor, Petofi u.1); TOTH, Zoltan (Budapest XVI., Rakoczi u.128); SZALAI, Janos (Szecseny)

Motorists' letters. Auto motor 15 no.11:5 6 Je '62.

1. Jarasi foallatorvos (for Szalai).

TARAPCIK, Josef

Development of technical conditions for the international navigation on the Danube. Kozl tud sz 14 no.9:396-402 S '64.

1. Head, Technical Division, Danube Commission.

SOV/115-59-2-14/38

24(3)

AUTHOR: Konovalov, M.D., Rikhter, V.A., Tarapin, V.N.

TITLE: A Photoelectric Apparatus for Measuring Torque (Fotoelektricheskiy pribor dlya izmereniya krutyashchikh momentov)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 2, pp 28-29 (USSR)

ABSTRACT: The photoelectric apparatus, developed by Professor S.A. Strelkov is for measuring torque on shafts of building and road construction machines. There are two variants of this apparatus, one for installing on shafts which may be removed for this purpose, and the second for non-removable shafts. The apparatus works on storage batteries, which is very valuable during field tests. Torque measurement is done by light waves. The paper then describes briefly how both variants function. Tests made so far show that under field conditions, the degree of error is 3-4% and under laboratory conditions, it may be reduced to 2%. This apparatus has proved invaluable

Card 1/2

A Photoelectric Apparatus for Measuring Torque

in measuring torque of excavators, snow ploughs and other building and road construction machines. The editorial staff notes that the torsional gauge, developed and described by V.I.Zelenskiy in "Izmeritel'naya tekhnika", Nr 1, 1958, was designed on the principles of Professor Strelkov's photoelectric apparatus. There are 2 diagrams and 1 graph.

LETOKHOV, V.S.; VATSURA, V.V.; PUKHLIK, Yu.A.; FEDOTOV, D.I.; KOSOZHIKHIN, A.S.; ZHABOTINSKIY, M.Ye.; DASHEVSKAYA, Ye.I.; KOZLOV, A.N.; RUVINSKIY, L.G.; VASIN, V.A.; YURGENEV, L.S.; NOVOMIROVA, I.Z.; PETROVA, G.N.; SHCHEDROVITSKIY, S.S.; BELYAYEVA, A.A.; BRYKINA, L.I.; GLEBOV, V.M.; DRONOV, M.I.; KONOVALOV, M.D.; TARAPIN, V.N.; MIKHAYLOVSKIY, S.S.; ZHEGALIN, V.G.; ZHABIN, A.I.; GRIBOV, V.S.; MAL'KOV, A.P.; CHERNOV, V.N.; RATNOVSKIY, V.Ya.; VOROB'YEVA, L.M.; MILOVANOVA, M.M.; ZARIPOV, M.F.; KULIKOVSKIY, L.F.; GONCHARSKIY, L.A.; TYAN KHAK SU

Inventions. Avtom. i prib. no.1:78-80 Ja-Mr '65.
(MIRA 18:8)

SHCHEDROVITSKIY, S.S., kand.tekhn.nauk; KOPEYKINA, N.N., inzh.; TARAPIN, V.N., inzh.; GOLOVKO, Z.I., inzh.; KISELEVSKIY, S.I., inzh.; GOLOVANOV, A.I., inzh.

Universal loader limiter. Bezop.truda v prom. 5 no.7:16-19 Jl '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut stroitel'nogo i dorozhnogo mashinostroyeniya.
(Cranes, derricks, etc.—Safety appliances)

AKOL'ZIN, P.".; ARAKEL'YANTS, N.M.; BUYANOVA, O.A.; KIRNOSOV, V.I.; KISELEVSKIY, S.L.; TARAPIN, V.N.; SHCHEDROVITSKIY, S.S.; EYDEL'MAN, R.Ya.

Unified series of strain gauges for the automation of construction and road machinery. Priborostroenie no.8:11-12 Ag '62. (MIRA 15:9)

(Strain gauges)

TARAPINA, T.V.

Effect of ionizing radiation on the cardiac muscle of mammals.
Dokl. AN SSSR 152 no.1:202-204 S '63. (MIRA 16:9)

1. Ryazanskiy meditsinskiy institut im. Pavlova. Predstavleno akademikom K.I.Skryabinym.

(X RAYS--PHYSIOLOGICAL EFFECT) (HEART--MUSCLE)

TARAPINA, T. V. "Reactive Changes and Myocardial Regeneration in Mammals Following Burn and Radiation Shock." Destructive morphological changes occured in the myocardia of rats subjected to lethal and sublethal doses of radiation. The ability of the myocardium to regenerate was inhibited in proportion to the intensity of radiation.

L 04717-67 EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k) IJP(c) JD/HM

ACC NR: AP6027430 SOURCE CODE: UR/0125/66/000/007/0012/0015

AUTHOR: Fil'chakov, P. F.; Tarapon, A. G.; Burykin, A. Ya.; Ryabov, V. R.

ORG: [Fil'chakov; Tarapon; Burykin] Mathematics Institute AN UkrSSR (Institut matematiki AN UkrSSR); [Ryabov] Institute of Electric Welding im. Ye. O. Paton AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Investigation of the nonstationary heat field in the bimetal aluminum-steel

SOURCE: Avtomaticheskaya svarka, no. 7, 1966, 12-15

TOPIC TAGS: bimetal, aluminum, steel, welding technology, heat transfer, heat conduction, simulation, graphic technique

ABSTRACT: A method is described for simulating unstationary heat fields on electrically conducting paper. This method makes it possible to find the general principles of heat diffusion in the welding of metals in different combinations without resorting to complex experiments. Transitional heat fields were determined for different bimetallic combinations of AD1 or AMg6 aluminum and St.3 or 1Kh18N9T steel. The relationship was established between the time required for transition

Card 1/2 UDC: 621.791:669.14:669.71:536.12

L 04717-67
ACC NR: AP6027430

lines to reach unsafe temperatures and the ratio of the thicknesses and the thermophysical properties (heat conductivity and specific heat) of the dissimilar metals to be joined. Nomograms were constructed for calculating the time required for the aluminum-steel bimetal transition lines to attain critical temperatures (over 520°C). Orig. art. has: 1 table and 7 equations.

SUB CODE: 11, 13, 20/ SUBM DATE: 09Mar65/ ORIG REF: 003

Card 2/2 afs

S/271/63/000/003/029/049
A060/A126

AUTHOR: Tarapon, A.G.

TITLE: Instrument ВЭЛ-2/61 (VEL-2/61) for visual observation of equipotential lines

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 14 - 15, abstract 3B78 (Dokl. 4-y Mezhvuz. konferentsii po primeneniyu fiz. i matem. modelirovaniye v razlichn. otraslyakh tekhn. Sb. 1, Moscow, 1962, 351 - 356)

TEXT: The author describes the instrument VEL-2/61 which affords the possibility of seeing and fixating any equipotential lines of electrical simulators made from electrically conductive paper or from impedance grids. The instrument consists of a simulator, commutating switch made of photoresistors, a comparator unit for comparing a signal to a specified signal, an indicator unit with output to a cathode-ray tube, and a power supply. The commutating switch serves to feed the values of the potentials in the simulator to the comparator unit, and also to supply a synchronizing pulse to the indicator unit. The com-

Card 1/2

Instrument ВЭЛ-2/61 (VEL-2/61) for visual ....

mutating switch operates in the following manner: the photoresistors are situated in rows one next to the other and light up by a running light beam whose width is equal to the width of the photoresistor. If at any instrument the light spot is projected on the photoresistor connected to the simulator at a point with potential φ then at the output of the commutator there will occur a potential U_1 corresponding to φ. There are 3 figures and 5 references.

A. S.

[Abstracter's note: Complete translation]

Card 2/2

S/041/62/014/004/006/007
B172/B112

AUTHOR: Tarapon, A. C. (Kiyev)

TITLE: On a method of visualizing equipotential lines

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, v. 14, no. 4, 1962, 452 - 455

TEXT: An instrument developed at the laboratory for electric simulation of the Academy of Sciences USSR is described. The plane potential is tapped at individual points. Photoconductive cells, sucessively connected without any spaces between them, are illuminated cyclically by a light source so as to obtain a continuous signal from the discrete values φ_n which controls an oscilloscope. The width of the light beam is equal to that of one cell. The potential φ_n is on one side of the n-th cell. The other sides of the cell form the output where the continuous signal desired appears. This arrangement has the following advantages: absence of mechanical parts, long lifetime, and simple synchronization with the oscilloscope. Boundary value problems for the Laplace equation were studied on a model with 16 cells. There are 3 figures.

Card 1/2

On a method of visualizing ...

S/041/62/014/004/006/007
B172/B112

SUBMITTED: October 18, 1960

Card 2/2

TARAPON, V.A.

USSR/Optics - Physical Optics. K-5

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7735

Author : Roshchina, Dadentova, Tarapon. V.A.
Inst :
Title : Investigation of Molecular Scattering of Light in Alcohol Solutions.

Orig Pub : Woi. fiz. zh., 1956, 1, No 2, 183-192

Abstract : The influence of the temperature and concentration on the intensity of the isotropic and anisotropic portions of the Rayleigh scattering was investigated for binary solutions of alcohols (ethyl and butyl) both in each other, as well as in solvents having in the liquid state a molecular structure that is different from that of alcohols (glycerin, acetone, benzol, CCl_4, and dioxane). Use was made of the classification of solutions, resulting from data of X-ray diffraction, according to which in first approximation the solutions can be separated into

Card 1/3 - 36 -

USSR/Optics - Physical Optics.

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7735

molecularly miscible, molecularly immiscible, and their solutions with chemical interaction between components. On the basis of the type of the isotherms of the isotropic scattering, conclusions are drawn concerning the miscibility or immiscibility of the components of the solution. Among the solutions investigated there were encountered representatives of all three of the above groups of solutions. Thus, solutions of ethanol and butanol in each other, the solutions of butanol and acetone and dioxane should be classified as molecularly miscible solutions. In solutions of ethanol and butanol in benzol and glycerin one observes a noticeable concentration scattering, due to the molecular immiscibility of the components. Finally, solutions of ethanol and butanol in carbon tetrachloride must be classified as solutions with chemical interaction between the components. It was established that fundamentally the

Card 2/3

USSR/Optics - Physical Optics. K-5

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7735

Inmiscibility of the components is determined by the character of the intermolecular interaction between the different particles of the solution components, and its intensity. If the fundamental character of the interaction between the particles of the solution is similar, the inmiscibility can be caused by the difference in the dimension of the molecules.

Card 3/3

TARAPON, Yu.G.

Modification of an endoscope with a spatula for extrapleural pneumonolysis. Probl.tub. 34 no.3:69 My-Je '56. (MLRA 9:11)

1. Iz khirurgicheskogo otdeleniya (zav. - dotsent O.G.Gorovenko) Ukrainskogo instituta tuberkuleza imeni F.G.Yanovskogo (dir. A.S. Mamolat)

(COLLAPSE THERAPY
pneumonolysis, extrapleural, use of modified endoscope with spatula)
(SURGERY, OPERATIVE, appar. and instruments
modified endoscope with spatula for extrapleural pleumonolysis)

GOROVENKO, G.G., starshiy nauchnyy sotrudnik; MIKHEL'SON, B.V., nauchnyy sotrudnik; YATSOZHINSKIY, Yu.D., nauchnyy sotrudnik TARAPON, Yu.G., nauchnyy sotrudnik

Causes of the ineffectiveness of lung collapse surgery in pulmonary tuberculosis. Pat.,klin.i terap.tub. no.8:377-381 '58. (MIRA 13:7)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza im. akad. F.G. Yanovskogo.
(TUBERCULOSIS) (LUNGS--COLLAPSE)

TARAPON, Yu. G., Candidate of Med Sci (diss) -- "The prophylaxis and treatment of operational and immediate postoperational complications in extrapleural pneumothorax". Kiev, 1959. 15 pp (Kiev Order of Labor Red Banner Med Inst im Acad A. A. Bogomolets), 220 copies (KL, No 21, 1959, 121)

GOROVENKO, G. G.; BRUSILOVSKIY, B. M.; LOZOVOY, Ye. Kh.; MARSHAK, A. Yu.; MIKHEL'SON, B. V.; PILIPCHUK, N. S.; SLEPUKHA, I. M.; SOKOLIK, Yu. I.; TARAPON, Yu. G.; YATSOZHINSKIY, Yu. D.

Results of the use of thoracoplasty and extrapleural pneumolysis in pulmonary tuberculosis. Probl. tub. no.2:24-29 '62. (MIRA 15:2)

1. Iz 1-go khirurgicheskogo otdeleniya (zav. - st. nauchnyy sotrudnik G. G. Gorovenko) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni akad. F. G. Yanovskogo (dir. - dotsent A. S. Mamolat)

(TUBERCULOSIS)
(LUNGS—COLLAPSE)
(CHEST—SURGERY)

TARAPOV, I Ye

USSR/Mechanics - Hydromechanics

FD-2481

Card 1/1 Pub 85-8/19

Author : Tarapov, I. Ye.

Title : Solution of the problem of the motion of a viscous gas between two moving parallel plates with heat emission

Periodical : Prikl. Mat. i Mekh., 19, 325-330, May-June 1955

Abstract : The author states that problems arising in the study of the motion of a viscous gas with various temperature boundary conditions is of interest for gas-dynamic lubrication theory (theory of lubrication by compressed gas) and for the theory of heat transfer. The author develops the exact solution of the problem for the case of motion of the gas between parallel plates.

Institution: --

Submitted : February 25, 1954

Tarapov, I. E.

1 - F/W

Tarapov, I. E. Solution of a problem of motion of a viscous gas between two moving parallel plates with heat loss. Prikl. Mat. Meh. 19, 325–330 (1955). (Russian)

Viscous gas flows steadily between two planes, each at a constant temperature, and one in uniform motion parallel to the other which is fixed. The pressure gradient in the direction of motion is assumed to be zero. Non-dimensional equations of motion and energy are then obtained in the forms

$$\frac{d}{dy}\left(T^n\frac{dv}{dy}\right)=0, \quad \frac{d}{dy}\left(T^n\frac{d\Theta}{dy}\right)=0,$$

where y is the coordinate perpendicular to the planes and v, T, Θ are respectively velocity, temperature and total head temperature. This reduction depends on the viscosity being proportional to a power T^n, and on the (unstated) assumption that the specific heat c_p is independent of temperature. It follows at once that T is a quadratic function of v, and then y is found as an incomplete beta-function of v. The results are applied to several particular cases of the boundary conditions. *L. M. Milne-Thomson* (Greenwich).

124 58-6 6731

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 61 (USSR)

AUTHOR: Tarapov, I. Ye.

TITLE: The Motion of a Plate Having Weight in a Viscous Liquid Contained Between Two Parallel Flat Surfaces (Dvizheniye vesomoy plastiny v vyazkoy zhidkosti mezhdu dvumya parallel'nymi ploskostyami)

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1957, Vol 80, Zap. Matem. otd. fiz.-matem. fak. i Khar'kovsk. matem. o-va, Vol 25, pp 107-111

ABSTRACT: A plate having weight is placed in a viscous liquid contained between two moving flat surfaces at a small angle relative to the two surfaces. The flow is considered stationary and the equations of the theory of hydrodynamic lubrication are used for the solution of the problem. If the weight and orientation of the plate are given, then out of the conditions of equilibrium of the plate a system of algebraic equations is obtained for the determination of the relative velocities. It is assumed therein that the moment of the pressure forces relative to the center of gravity of the plate is equalized by suitable means. The expression for the determination of the vertical force acting on the flat surfaces as the result of the presence of the plate is worked out.

1. Hydrodynamics research

V.N. Rumyantsev

Card 1/1

SOV/123-59-15-59152

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, p 38 (USSR)

AUTHORS: Tarapov, I.Ye., Bondarenko, L.I.

TITLE: Some Problems in the Theory of Lubrication of Surfaces of Revolution

PERIODICAL: Uch. zap. Khar'kovsk. gos. ped. in-ta, 1957, Vol 21, pp 25 - 36

ABSTRACT: The article has not been reviewed.

Card 1/1

GERMAN, V.L., prof.; TARAPOV, I.Ye. (Khar'kov)

Hydrodynamic and aerodynamic lubrication theories. Uch. zap.KHGU 80:101-106 '57. (MIRA 12:11)
(Lubrication and lubricants) (Fluid dynamics)

BORISENKO, Aleksandr Ivanovich; TARAPOV, Ivan Yevgen'yevich; BLANK, Ya.P., prof., otv.red.; GERMAN, V.L., prof., otv.red.; TRET'YAKOVA, A.N., red.; TROFIMENKO, A.S., tekhn.red.

[Vector analysis and the beginnings of the calculus of tensors] Vektornyi analiz i nachala tenzornogo ischisleniia. Khar'kov, Izd-vo Khar'kovskogo gos.univ., 1959. 237 p. (MIRA 13:8)
(Calculus of tensors) (Vector analysis)

SOV/179-59-2-35/40

AUTHOR: Tarapov, I. Ye. (Khar'kov)

TITLE: On the Problem of the Lubricant of Collar Bearings (K zadache o smazke kol'tsevogo podpyatnika)

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashinostroyeniye, 1959, Nr 2, pp 194-197 (USSR)

ABSTRACT: The author describes an approximate method of calculating the hydrodynamic conditions of the lubricant. It is assumed that the clearance h between the collars of the Reynold's number are small. Therefore, the expression (1) can be derived where R - characteristic radius of collars, ω - their characteristic angular velocity. It is also assumed that:

$$v_r^o \ll \omega R \quad \text{and} \quad v_r^o \sim \omega R \omega h^2/\nu$$

(Eq 2) (v^o - characteristic radial velocity). Then the problem can be described by the basic equations, Eqs (3) to (7). The solution of this system of equations can be found when the conditions Eq (8) are defined. Then the solution

Card 1/4

On the Problem of the Lubricant of Collar Bearings

will take the form of Eq (12). The force P and the friction moment M affecting the collars can be determined from Eqs (13) and (14). The following deductions can be made when analyzing the functions $f_1(x)$, $f_2(x)$ and $f_3(x)$ in Eq (13):(1) For every β_1 such a ratio of maximum radii exists, for which $P_1 = P_1(x)$ has a maximum. This ratio is equal approximately 2 for $\beta \sim 1$. (2) The function $P_2 = P_2(x)$ has a maximum only when $\beta_2 < 1$. (3) For the maximum force P, the external supply of lubricant is advisable ($p_2 > p_1$). The calculation of bearings can be performed as follows:

Let $\rho = 0.9$ g/cm^3, $R_2 = 10$ cm, $n_2 = 10\,000$ rpm,

then

$$\alpha = \rho R_2^2 \frac{3}{20} \left(\frac{\pi n_2}{30}\right)^2 = 1.48 \times 10^7 \text{ bar} = 14.7 \frac{\text{kg}}{\text{cm}^2} .$$

Card 2/4 In the case of lubricant supply under pressure, the value of

On the Problem of the Lubricant of Collar Bearings

$p_1 - p_2$ is taken as 14.7 kg/cm^2 ($\beta_1 = 1$) and for $R_2/R_1 = 2$ (see figure on p 197), the value of P_1 is calculated as follows:

$$P^o = P_1/\pi R_2^2 \alpha = 0.23 \qquad P_1 = 0.23\pi R_2^2 \alpha = 1065 \text{ kg} .$$

For all other cases of R_2/R_1, the values of P_1 are smaller (R_1 - internal, R_2 - external, radii of collar).

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SOV/179-59-2-35/40

On the Problem of the Lubricant of Collar Bearings

The output of the lubricant through the clearance between the collars can be found from Eq (17). There is 1 figure.

SUBMITTED: October 1, 1958.

Card 4/4

S/024/60/000/03/023/028
E081/E441

AUTHOR: Tarapov, I.Ye. (Khar'kov)

TITLE: Free Convection in a Tube Rotating About an Axis

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 3, pp 171-175 (USSR)

ABSTRACT: The convection is discussed of a viscous incompressible liquid in an infinite horizontal tube, rotating with constant angular velocity (ω) about an axis parallel to the axis of the tube and distance ℓ from it (Fig 1). The problem is formulated and analysed using vector methods in conjunction with the dimensionless variables and notation given at the top of p 172. Two particular cases are dealt with (p 174), (1) $\omega^2 R \gg g$, and convection from gravitational forces can be neglected, and (2) $\omega^2 R \ll g$, and convection from gravitational forces only is taken into account. In this case, formulae are derived (top of p 175) for the flow Q through the tube from convection, and the flow of heat q through the wall of the tube. The nature of the temperature distribution in the first case ($\omega^2 R \gg g$) is shown in Fig 2. For ε (= r/L) = ∞ the isothermals are circles.

Card 1/2

S/024/60/000/03/023/028
E081/E441

Free Convection in a Tube Rotating About an Axis

For $\varepsilon \to 0$ the isothermals are symmetrical about perpendicular axes and for $\varepsilon = 5$ and $0 < \varepsilon < 5$ intermediate diagrams are obtained. There are 2 figures.

SUBMITTED: June 20, 1959

Card 2/2

BORISENKO, Aleksandr Ivanovich; STEPANOV, G.Yu., dokt, fiz.-mat. nauk, retsenzent; TARAPOV, I.Ye., kand. fiz.-mat. nauk, red.; TUBYANSKAYA, F.G., red. izd-va; ROZHIN, V.P., tekhn. red.

[Gas dynamics of engines] Gazovaia dinamika dvigatelei. Moskva, Gos. nauchno-tekhn. izd-vo, Oborongiz, 1962. 793 p. (MIRA 15:4)

(Gas dynamics) (Gas turbines)

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S/057/62/032/011/003/014
B104/B102

24.2120

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TITLE: Some self-similation problems of magnetohydrodynamics with axial symmetry

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 11, 1962, 1302-1312

TEXT: The nonstationary equations of magnetohydrodynamics for an incompressible viscous fluid of finite conductivity are given by Eq. (1) and (2) if axial symmetry is assumed and cylindrical coordinates are used:

$$\left.\begin{aligned}
&\frac{\partial H_r}{\partial t}+v_r\frac{\partial H_r}{\partial r}=H_r\frac{\partial v_r}{\partial r}+\nu_m\frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rH_r)\right),\\
&\frac{\partial H_\varphi}{\partial t}+v_r\frac{\partial H_\varphi}{\partial r}+\frac{v_\varphi H_r}{r}=H_r\frac{\partial v_\varphi}{\partial r}+\frac{H_\varphi v_r}{r}+\nu_m\frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rH_\varphi)\right),\\
&\frac{\partial H_z}{\partial t}+v_r\frac{\partial H_z}{\partial r}=H_r\frac{\partial v_z}{\partial r}+\nu_m\frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial H_z}{\partial r}\right);\quad \frac{1}{r}\frac{\partial}{\partial r}(rH_r)=0.
\end{aligned}\right\}\qquad(1)$$

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$$\left.\begin{aligned}
&\frac{\partial v_r}{\partial t}+v_r\frac{\partial v_r}{\partial r}-\frac{v_\varphi^2}{r}=-\frac{1}{\rho}\frac{\partial P_m}{\partial r}+\frac{1}{4\pi\rho}\left(H_r\frac{\partial H_r}{\partial r}-\frac{H_\varphi^2}{r}\right)+\\
&\qquad+\nu\frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rv_r)\right),\\
&\frac{\partial v_\varphi}{\partial t}+v_r\frac{\partial v_\varphi}{\partial r}+\frac{v_rv_\varphi}{r}=-\frac{1}{\rho r}\frac{\partial P_m}{\partial\varphi}+\frac{1}{4\pi\rho}\left(H_r\frac{\partial H_\varphi}{\partial r}+\frac{H_rH_\varphi}{r}\right)+\\
&\qquad+\nu\frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rv_\varphi)\right),\\
&\frac{\partial v_z}{\partial t}+v_r\frac{\partial v_z}{\partial r}=-\frac{1}{\rho}\frac{\partial P_m}{\partial z}+\frac{1}{4\pi\rho}H_r\frac{\partial H_z}{\partial r}+\nu\frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial v_z}{\partial r}\right),\\
&\qquad\frac{1}{r}\frac{\partial}{\partial r}(rv_r)=0;\quad P_m=p+\frac{H^2}{8\pi},
\end{aligned}\right\}\qquad(2)$$

(L. D. Landau and Ye. M. Lifshits, Elektrodinamika sploshnykh sred - Electrodynamics of continuous media, GITTL, M., 1957). From these equations follows

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$$\left.\begin{aligned} P_m &= P_1(t, r) + P_2(t) \cdot z, \\ v_r &= \frac{Q(t)}{2\pi}; \quad H_r = \frac{\Phi(t)}{2\pi}\frac{1}{r}, \end{aligned}\right\} \qquad (3),$$

where Q(t) is the quantity of fluid passing through the cylindrical surface, and $\Phi(t)$ is the magnetic flux. $\Phi(t)$ is constant and Q(t) is assumed to be constant. $P_2(t)$ is assumed known and $P_1(t,r)$ is obtained by integrating the first equation of (2). The problem is thus reduced to the determination of v_φ, v_z, H_φ, and H_z from the system

$$\begin{aligned} &\frac{\partial H_\varphi}{\partial t} + \frac{Q}{2\pi r}\frac{\partial H_\varphi}{\partial r} + \frac{\Phi}{2\pi r^2} v_\varphi = \frac{\Phi}{2\pi r}\frac{\partial v_\varphi}{\partial r} + \frac{Q}{2\pi r^2} H_\varphi + \nu_m \frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rH_\varphi)\right), \\ &\frac{\partial v_\varphi}{\partial t} + \frac{Q}{2\pi r}\left(\frac{\partial v_\varphi}{\partial r} + \frac{v_\varphi}{r}\right) = \frac{\Phi}{8\pi^2\rho r}\left(\frac{\partial H_\varphi}{\partial r} + \frac{H_\varphi}{r}\right) + \nu \frac{\partial}{\partial r}\left(\frac{1}{r}\frac{\partial}{\partial r}(rv_\varphi)\right), \\ &\frac{\partial H_z}{\partial t} + \frac{Q}{2\pi r}\frac{\partial H_z}{\partial r} = \frac{\Phi}{2\pi r}\frac{\partial v_z}{\partial r} + \nu_m \frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial H_z}{\partial r}\right), \\ &\frac{\partial v_z}{\partial t} + \frac{Q}{2\pi r}\frac{\partial v_z}{\partial r} = -\frac{P_2(t)}{\rho} + \frac{\Phi}{8\pi^2\rho r}\frac{\partial H_z}{\partial r} + \nu \frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial v_z}{\partial r}\right). \end{aligned} \qquad (4).$$

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The solution of (4) ake sought in the form

$$\left.\begin{aligned} H_\varphi = H_{\varphi 0} r^\alpha g(\zeta), \quad H_z = H_{z0} r^\beta h(\zeta), \\ v_\varphi = v_{\varphi 0} r^\alpha f(\zeta), \quad v_z = v_{z0} r^\beta \psi(\zeta), \\ P_2(t) = P_{20} \cdot t^{2\beta - 1}. \end{aligned}\right\} \qquad (5)$$

where $H_{\varphi 0}$, H_{z0}, $v_{\varphi 0}$, v_{z0}, P_{20} and β are constants and the dimensionless functions g, h, f, and ψ are functions of the dimensionless variable $\zeta = r^2/4\nu t$. Assuming the form (5) the system:

$$\begin{aligned} -4\zeta^2 g' + \frac{Q}{2\pi\nu}[(\alpha-1)g + 2\zeta g'] &= \frac{\Phi v_{\varphi 0}}{2\pi\nu H_{\varphi 0}}[(\alpha-1)f + 2\zeta f'] + \\ &+ \frac{\nu_m}{\nu}[(\alpha^2-1)g + 4(\alpha+1)\zeta g' + 4\zeta^2 g''], \\ -4\zeta^2 f' + \frac{Q}{2\pi\nu}[(\alpha+1)f + 2\zeta f'] &= \frac{\Phi H_{\varphi 0}}{8\pi^2\rho\nu v_{\varphi 0}}[(\alpha+1)g + 2\zeta g'] + \\ &+ (\alpha^2-1)f + 4(\alpha+1)\zeta f' + 4\zeta^2 f'', \\ -4\zeta^2 h' + \frac{Q}{2\pi\nu}[\beta h + 2\zeta h'] &= \frac{\Phi v_{z0}}{2\pi\nu H_{z0}}[\beta\psi + 2\zeta\psi'] + \\ &+ \frac{\nu_m}{\nu}[\beta^2 h + 4(\beta+1)\zeta h' + 4\zeta^2 h''], \end{aligned} \qquad (7)$$

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$$-4\zeta^2\psi' + \frac{Q}{2\pi\nu}[\beta\psi + 2\zeta\psi'] = -\frac{P_{20}\zeta^{4-2\beta}}{\nu\rho\omega_{z0}(4\nu)^{2\beta-4}} +$$

$$+ \frac{\Phi H_{z0}}{8\pi^2\rho\nu\omega_{z0}}[\beta h + 2\zeta h'] + \beta^2\psi + 4(\beta+1)\zeta\psi' + 4\zeta^2\psi''.$$

is obtained which cannot be solved in general. For the following special cases (7) is solved: (1) In an investigation of the vortex sources in the usual hydrodynamics (H = 0) it is shown that an initial vortex source of the form $v_r = Q/2\pi r$, $v = \gamma_0/2\pi r$, does not change its configuration and that sources or sinks alter the diffusion velocity of the vortex in the fluid. (2) The diffusion of the vortex of the magnetic field: The problem leads to the solution of the first equation of (7) with $\alpha = -1 + Q/2$. (3) The damping of a magnetic vortex field in a rotating fluid in the presence of a radial magnetic field: The functions $g(\zeta)$ and $f(\zeta)$ are determined from the first two equations of the system (7). (4) The damping of the axial magnetic field in the presence of a sink: H_z is determined as a function of time from the function $h(\zeta)$ which satisfies the third equation of the system (7) with $\beta = Q/2$. (5) The damping of the axial magnetic field and the axial motion of the fluid in

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the presence of a constant radial field: The solution of the nonstationary problem has the form:

$$H_z(t, r)=\frac{\Phi}{2\pi v_\infty}Cr^{-1}h(\zeta),$$

$$v_z(t, r)=\lambda Cr^{-1}\psi(\zeta).$$

where $h(\zeta)$ and $\psi(\zeta)$ satisfy the last two equations of (7) with $\beta = -\lambda$. There are 5 figures.

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PRESENTED: June 26, 1961 (initially)

SUBMITTED: December 15, 1961 (after revision)

S/057/62/032/011/004/014
B104/B102

AUTHORS: Dikiy, G. P., and Tarapov, I. Ye.

TITLE: Some stationary problems of magnetohydrodynamics with axial symmetry

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 11, 1962, 1333-1341

TEXT: The stationary motion of an incompressible viscous fluid with finite conductivity is considered assuming that $\vec{v}$ and $\vec{H}$ are independent of the coordinates φ and z. In this case the general magnetohydrodynamics in cylindrical coordinates lead to:

$$\begin{aligned}
v_r\frac{dH_r}{dr} &= H_r\frac{dv_r}{dr}+\nu_m\frac{dr}{dr}\left(\frac{1}{r}\frac{d}{dr}(rH_r)\right);\\
v_r\frac{dH_\varphi}{dr}+\frac{v_\varphi H_r}{r} &= H_r\frac{dv_\varphi}{dr}+\frac{Hv_r}{r}+\nu_m\frac{d}{dr}\left(\frac{1}{r}\frac{d}{dr}(rH_\varphi)\right);\\
v_r\frac{dH_z}{dr} &= H_r\frac{dv_z}{dr}+\nu_m\frac{1}{r}\frac{d}{dr}\left(r\frac{dH_z}{dr}\right);\\
\frac{1}{r}\frac{d}{dr}(rH_r) &= 0.
\end{aligned} \qquad (1)$$

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$$\frac{dv_r}{dr}-\frac{v_\varphi^2}{r}=-\frac{1}{\rho}\frac{\partial P_m}{dr}+\frac{1}{4\pi\rho}\left(H_r\frac{dH_r}{dr}-\frac{H_\varphi^2}{r}\right)+\nu\frac{d}{dr}\left(\frac{1}{r}\frac{d}{dr}(rv_r)\right);$$
$$v_r\frac{dv_\varphi}{dr}+\frac{v_rv_\varphi}{r}=\frac{1}{4\pi\rho}\left(H_r\frac{dH_\varphi}{dr}+\frac{H_rH_\varphi}{r}\right)+\nu\frac{d}{dr}\left(\frac{1}{r}\frac{d}{dr}(rv_\varphi)\right); \qquad (2)$$
$$v_r\frac{dv_z}{dr}=-\frac{1}{\rho}\frac{\partial P_m}{\partial z}+\frac{1}{4\pi\rho}H_r\frac{dH_z}{dr}+\nu\frac{1}{r}\frac{d}{dr}\left(r\frac{dv_z}{dr}\right);$$
$$\frac{1}{r}\frac{d}{dr}(rv_r)=0;\quad P_m=p+\frac{H^2}{8\pi}.$$

(L. D. Landau and Ye. M. Lifshits, Elektrodinamika sploshnykh sred, Electrodynamics of continuous media, GITTL, M., 1957). From these equations and the assumed axial symmetry it follows that

$$\left.\begin{aligned}P_m&=P_1(r)+P_2\cdot z;\\ v_r&=\frac{Q}{2\pi}\frac{1}{r};\quad H_r=\frac{\Phi}{2\pi}\frac{1}{r}.\end{aligned}\right\} \qquad (3),$$

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where Q is the quantity of liquid flowing through the cylindrical surface and Φ is the magnetic flux. The constant gradient of pressure P_z along the axis of symmetry is assumed to be known, $P_1(r)$ is obtained by the integration of the first equation of (2). Thus the problem is reduced to determining v_φ, v_z, H_φ, and H_z from the system

$$\begin{aligned}
&\frac{d}{dr}\left(\frac{1}{r}\frac{d}{dr}(rH_\varphi)\right)-\frac{Q}{2\pi\nu_m}\frac{d}{dr}\left(\frac{H_z}{r}\right)+\frac{\Phi}{2\pi\nu_m}\frac{d}{dr}\left(\frac{v_z}{r}\right)=0;\\
&\frac{d}{dr}\left(\frac{1}{r}\frac{d}{dr}(rv_\varphi)\right)-\frac{Q}{2\pi\nu}\frac{1}{r^2}\frac{d}{dr}(rv_\varphi)+\frac{\Phi}{8\pi^2\rho\nu}\frac{1}{r^2}\frac{d}{dr}(rH_\varphi)=0;\\
&\frac{d}{dr}\left(r\frac{dH_z}{dr}\right)-\frac{Q}{2\pi\nu_m}\frac{dH_z}{dr}+\frac{\Phi}{2\pi\nu_m}\frac{dv_z}{dr}=0;\\
&\frac{d}{dr}\left(r\frac{dv_z}{dr}\right)-\frac{Q}{2\pi\nu}\frac{dv_z}{dr}+\frac{\Phi}{2\pi^2\rho\nu}\frac{dH_z}{dr}=\frac{P_z}{\rho\nu}\cdot r.
\end{aligned}\tag{4}$$

whose general solution is:

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$$\left.\begin{aligned}
H_r &= \frac{\Phi}{2\pi\nu_m}\left(C_1 r^{\lambda_1} + C_2 r^{\lambda_2}\right) + 4\pi\rho Q C_3 r + \Phi C_4 \frac{1}{r};\\
v_r &= \left(\frac{Q}{2\pi\nu_m} - 1 - \lambda_1\right) C_1 r^{\lambda_1} + \left(\frac{Q}{2\pi\nu_m} - 1 - \lambda_2\right) C_2 r^{\lambda_2} + \Phi C_3 r + Q C_4 \frac{1}{r};\\
H_z &= \frac{\Phi}{2\pi\nu_m}\left(C_5 r^{\lambda_3} + C_6 r^{\lambda_4}\right) + C_7 - \frac{4\pi^2\Phi P_z}{4\pi\rho\left(4\pi\nu - Q\right)\left(4\pi\nu_m - Q\right) - \psi^2} r^2;\\
v_z &= \left(\frac{Q}{2\pi\nu_m} - \lambda_3\right) C_5 r^{\lambda_3} + \left(\frac{Q}{2\pi\nu_m} - \lambda_4\right) C_6 r^{\lambda_4} + C_8 + \\
&\quad + \frac{4\pi^2\left(4\pi\nu_m - Q\right) P_z}{4\pi\rho\left(4\pi\nu - Q\right)\left(4\pi\nu_m - Q\right) - \psi^2} r^2,
\end{aligned}\right\} \quad (5)$$

$$\left.\begin{aligned}
\lambda_{1,2} &= -\frac{Q}{4\pi}\left(\frac{1}{\nu} + \frac{1}{\nu_m}\right) \pm \sqrt{\left[1 + \frac{Q}{4\pi}\left(\frac{1}{\nu} + \frac{1}{\nu_m}\right)\right]^2 + \frac{\psi^2}{16\pi^2\rho\nu\nu_m}},\\
\lambda_{3,4} &= \frac{Q}{4\pi}\left(\frac{1}{\nu} + \frac{1}{\nu_m}\right) \pm \sqrt{\left[\frac{Q}{4\pi}\left(\frac{1}{\nu} - \frac{1}{\nu_m}\right)\right]^2 + \frac{\psi^2}{16\pi^2\rho\nu\nu_m}}.
\end{aligned}\right\} \quad (6).$$

The following special cases are discussed: (1) Stationary vortex sources

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